

UNIVERSITY AND EDUCATIONAL INTELLIGENCE.

CAMBRIDGE.—The following is the letter of congratulation, written by the Public Orator, Dr. Sandys, on behalf of the University of Cambridge, and presented to the University of Christiania by Prof. A. R. Forsyth, F.R.S., the delegate appointed to represent the University of Cambridge on the occasion of the recent commemoration of the centenary of the birth of Niels Henrik Abel:—"Litterae vestrae, viri doctissimi, ad nos nuper perlatæ sunt, in quibus certiores facti sumus, annum centesimum ex eo quo natus est alumnus vester insignis, Nicolaus Henricus Abel, Universitatem vestram Nonis Septembris esse celebraturam. Alumnus ille vester, ut studiorum mathematicorum inter peritos ubique constat, inter scientiæ illius ipsos principes merito iamdudum numeratus est, neque in sua tantum vita, intra annorum septem et viginti spatium angustum, nomen immortale est adeptus, sed etiam sæculo in eodem inter Europæ gentes scientiæ analyticæ cultoribus plurimis novos stimulos indidit, et studiorum suorum ad regiones novas explorandas excitavit; e quibus unus, non secus atque alumnus ille vester, provinciae suæ pulchritudine singulari commotus, existimavit 'functiones ellipticas non aliis adnumerari debere transcendentes, sed speciem quandam iis inesse perfecti et absoluti.' Iuvat vitæ illius annales ab uno e professoribus vestris summa cum scientia, summa cum humanitate, conscriptos evolvere; iuvat inter socios illius externos, unum audire suis laudibus, suis laboribus omnibus illum maiorem esse dicentem; alterum, ab illo temporis exigui intra terminos monumentum aere perennius' esse exactum, quod indicaret quantum ex ingenio eius sperare licuisset, 'ni fata obstitissent'; iuvat nos quoque inter praeceptores nostros nonnullos numerare, qui alumni vestri vestigiis institerunt, alumni vestri famam indies latius extenderunt. Unum ex eis, etiam in Scandinavia horum studiorum cultoribus non ignotum, nuntium et legatum ad vos honoris causa mittimus, qui nostrum omnium nomine viri tanti memoriae celebrandæ laetus intersit. Valete."

Mr. R. P. Gregory, St. John's, has been appointed a demonstrator in botany.

The following have been elected to fellowships at Trinity College:—A. E. A. Watt Smyth, P. V. Bevan, O. W. Richardson, F. J. Pollock.

Dr. D. MacAlister has been appointed assessor to the regius professor of physic; Prof. Thomson, F.R.S., an elector to the Isaac Newton studentship in physical astronomy; Mr. J. B. Peace, Emmanuel, demonstrator of mechanism and applied mechanics; and Mr. R. C. Punnett, Caius, demonstrator of comparative anatomy. Mr. Punnett has also been elected to a fellowship at his college.

It is stated in the *British Medical Journal* that Prof. Johannes Orth, of Göttingen, has been invited to succeed Prof. Virchow in the chair of pathology at Berlin.

The following appointments have been made at the Hartley University College, Southampton:—Assistant lecturer in physics, Mr. O. W. Griffith; assistant lecturer in electrical engineering, Mr. E. H. Dixon; assistant lecturer in civil engineering, Mr. R. Baldwin Wiseman.

As already announced, the Manchester School of Technology is to be opened by Mr. Balfour as we go to press with this number. The school has occupied about seven years in building, and represents an endowment of nearly 300,000*l.*, largely, but not entirely, of municipal origin. A sum of no less than 25,000*l.* has been expended upon the plant of the department of mechanical engineering alone, and the other departments have been equipped in the same liberal spirit. The city of Manchester thus possesses a technical school which should become an important factor of national progress.

We have received the calendar of the Bristol Merchant Venturers' Technical College, which contains many illustrations of the workshops and laboratories in that institution. The College provides full courses of training in mechanical, electrical and sanitary engineering, and also prepares students for the B.Sc. examinations of the University of London in the faculties of science, engineering and economics. There are courses of training in the various branches of applied chemistry, including metallurgy, and special classes for persons intending to become architects, builders or surveyors. There is also a navigation department, a school for boys, and numerous evening classes.

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THE Clothworkers' scholarship of 60*l.* a year for three years, awarded on the results of the matriculation or entrance examination of the Central Technical College of the City and Guilds of London Institute, has been awarded to W. H. Grinstead, from Horsham Grammar School, who obtained first place at the examination. Free studentships have been awarded by the Institute to W. M. Hooton, from King's Lynn Municipal Technical School, L. G. Morse, from Marlborough College, and H. K. B. Reed, from the South-Western Polytechnic, who came next in order of merit.

AN address on the reorganised University of London was given by Sir Arthur Rücker, F.R.S., at the opening of the winter session of St. Mary's Hospital Medical School on October 3. Referring to the educational equipment of London, he remarked that "it was and is in many respects inferior to what is provided, not only in Germany and America, but in our own provinces. There is not a single laboratory in the metropolis devoted to pure chemistry and physics which will compare in magnitude or in the perfection of its details with some of those which exist elsewhere." The hope was expressed that the teaching of the sciences connected with medicine would be combined with research; so that the University should contribute directly to the advancement of knowledge, and graduates of foreign and colonial universities might be attracted to London to study in research laboratories like those of the recently established physiological department of the University.

THE proceedings at Oxford on October 8 and 9 in connection with the Bodleian tercentenary were marked both by their enthusiasm and by their picturesqueness. Among the multitude of distinguished guests were representatives of the universities, libraries and learned societies in every part of the world. On the evening of October 8, a reception by the Provost of Oriel, in his capacity of Vice-Chancellor of the University, took place in the Ashmolean Museum, where Mr. A. J. Evans exhibited a number of drawings, photographs, plans and casts illustrating the excavations at Knossos, in Crete. On the following morning, a congregation, presided over by the Vice-Chancellor, was held for the purpose of conferring degrees upon certain of the eminent persons present as guests of the University, for receiving congratulatory addresses on the tercentenary of Sir Thomas Bodley's library, and for welcoming the visitors by the Public Orator, Dr. Merry. Among the honorary degrees, that of doctor of science conferred upon Prof. C. S. Minot, professor of histology and human embryology at Harvard University, may be mentioned as indicating that the claims of science were not forgotten. The congratulatory addresses, handed to the Vice-Chancellor by the delegates appointed for the purpose by the university or learned society they represented, were numerous, the list of universities and learned bodies presenting addresses included the following names:—Universities of Cambridge, Dublin, London, Birmingham, Durham, Wales, Edinburgh, Aberdeen, Glasgow, Toronto, Montreal (McGill), Sydney, Allahabad, Cape Town, Paris, Caen, Lille, Nancy, Breslau, Giessen, Göttingen, Leipzig, Kiel, Brussels, Ghent, Louvain, Cracow, Graz, Copenhagen, Lund, Stockholm, Upsala, Geneva, Lausanne, Harvard, Cornell, Yale, Princeton, Columbia, Pennsylvania, Ireland (Royal), St. Andrews and Victoria, Royal Society, Royal College of Physicians, Royal College of Surgeons, Royal Geographical Society, Royal Irish Academy, Asiatic Society of Bengal, Royal Society of Sciences, Göttingen, Accademia dei Lincei, Rome, and Academy of Sciences, Vienna. After the congregation came the formal visit to the Bodleian Library. No preparations had been made, and the visitors found the Library wearing its every-day aspect. The celebrations were brought to a close by a dinner at Christ Church.

SOCIETIES AND ACADEMIES.

PARIS.

Academy of Sciences, September 29.—M. Bouquet de la Grye in the chair.—New experiments on the limit of intensity of current from a battery which corresponds to external electrolytic work apparent in a voltameter, by M. Berthelot. In a circuit consisting of one or more Daniell cells and a voltameter, the external resistance was increased until the gas resulting from the electrolysis was barely perceptible, and the limiting value determined. From these and earlier experiments on the same

subject, the conclusion is drawn that in electrolysis chemical energy is always necessary to commence the action, but not to maintain it. The preparation and properties of a new silicide of vanadium, by MM. H. Moissan and Holt. On heating silicon with an excess of vanadium trioxide in the electric furnace for some time, the silicide VSi_2 , previously described, is obtained, which is stable in the presence of an excess of silicon. Another silicide, of the composition V_2Si , has been obtained in three ways—by the interaction of vanadium trioxide (120 grams) and silicon (14 grams), of silicon and vanadium carbide, or of the trioxide, silicon and copper, in all cases in the electric furnace. The new silicide is more infusible than the silicide VSi_2 , from which it can also be distinguished by its colour, density, action with hydrochloric acid and easy decomposition on fusion with silicon.—On double fertilisation in the Cruciferae, by M. L. Guignard. The phenomenon of double fertilisation can be followed completely in *Lepidium sativum* and *Capsella Bursa pastoris*, a detailed description of the stages being given.—Observations of the Perrine-Borrelly comet (1902 *b*), made with the Brüner equatorial at the Observatory of Lyons, by M. J. Guillaume.—The organisation of automatic spectrographs at the Observatory of Meudon, registering the radial movements and the thickness of the solar chromosphere, by M. H. Deslandres. The apparatus briefly described produces on the same plate ninety small spectra giving the radial velocity and thickness at 180 points on the sun's edge. These points are united on a circle of 95 mm. diameter. So far, it has not been possible to make continuous records on account of the expense; similar equipments at different parts of the world are also necessary for complete results.—On the continuous deformation of surfaces, by M. G. Tzitzéica.—On nitro-pyromucic acid and its ethyl ester, and on dinitrofurfuran, by M. R. Marquis. A mixture of nitric acid and acetic anhydride has been found especially serviceable in nitrating in the furfuran series. With ethyl pyromucate a mononitro derivative is readily obtained.—On the saponification of nitric esters, by MM. Leo Vignon and I. Bay. The results of experiments on the hydrolysis of various nitrates by sulphuric acid and by soda. The reaction is complex, nitrous acid and occasionally ammonia being produced.—On the utilisation of mineral substances by grafted plants, by MM. Lucien Daniel and V. Thomas. Transpiration is greater in the host than in the grafted plants, the total quantity of mineral material absorbed being considerably modified as a result of the grafting. It was also found that one effect of grafting was to profoundly modify the phenomenon of chlorosis.—On the caoutchouc-producing Landolphia of the French Congo, by M. Auguste Chevalier.—The earthquake at Salonica, by M. Christomanos. The earthquake of July 5, the epicentre of which was between Salonica and Gouvesno, was not of volcanic origin. Its effects were felt at great distances and for several days, hence it is probable that the seismic focus was at a great depth.

October 6.—M. Bouquet de la Grye in the chair.—Remarks by M. Appell on the third volume of his "Traité de Mécanique rationnelle."—Observations on the sun made at the Observatory of Lyons with the 16 cm. equatorial during the first quarter of 1902, by M. J. Guillaume. The number of observations is smaller than usual owing to the unfavourable atmospheric conditions. Tables are given showing the number of spots, their distribution in latitude and the distribution of the faculae in latitude.—Comparison of the tables of Vesta with the meridional observations made between 1890 and 1900, by M. Gustave Leveau.—Remarks on a problem of Clebsch on the movement of a solid body in an indefinite liquid, and on the problem of M. de Brun.—On a theorem of M. Frobenius, by M. de Séguier.—On a derivative of hydrogen peroxide, by M. R. Fosse. The reactions of dinaphthopyranol towards zinc dust, alcohol, pyrogallol and potassium iodide show that it behaves rather as a derivative of hydrogen peroxide than as an alcohol.—The synthesis of some tertiary alcohols; diphenylcarbinols, by M. H. Masson. The results of the action of magnesium phenyl-bromide upon a series of esters is given in summary, with a list of the alcohols and hydrocarbons obtained and their boiling points.—Anhydrous copper-ammonium sulphates, by M. Bouzat. A thermochemical paper.—On the examination and estimation of extract of chestnut wood mixed with oak extract, by M. Ferdinand Jean. The method is based on the fact that extract of chestnut sets free iodine from iodic acid, whilst extract of oak bark has not this property.—On the pectic fermentation, by M. Goyaud. Pectise forms pectic acid at the expense of the pectin. The phenomenon is not qualitatively influenced by the

presence or absence of calcium salts.—The elaboration of venogen and of venom in the parotoid gland of *Vipera Aspis*, by M. L. Launoy. The snake poison is formed in the cells of the parotoid gland of *Vipera Aspis* in two phases—the nuclear phase, with formation of grains of venogen, and the cytoplasmic phase, in which the venogen is transformed into the venom.—Palaeontological researches in Patagonia, by M. André Tournouër.—On an enormous carnivorous mammal found in the plastic clay of Vaugirard, near Paris, by M. Marcellin Boule.

DIARY OF SOCIETIES.

FRIDAY, OCTOBER 17.

INSTITUTION OF MECHANICAL ENGINEERS, at 8.—Oil Motor Cars of 1902: Captain C. C. Longridge.

TUESDAY, OCTOBER 21.

ANTHROPOLOGICAL INSTITUTE (Lecture Theatre, Burlington House), at 5.30.—Huxley Memorial Lecture. Right-handedness and Left-brainedness: Prof. D. J. Cunningham, F.R.S.

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